

REMARKS

Claims 1-56 initially have been presented for examination and are pending. Claims 1 and 31 are the independent claims. With the foregoing amendments, Claims 2, 5, 7, 9-10, 14-16, 19-27, 29-30, 32, 34, 37-38, 41-42, 44-47, 50-53 and 56 are cancelled. The foregoing amendments recast the claims to clarify the invention, and in particular to state that a method and apparatus for retrieving sets of object data from a data store, queries the data store using written representations of the desired object data set which imply constraints on dimensions, said implied constraints being indicated by a record operator. Support for the foregoing claim amendments is found throughout the Specification, for example on page 5, line 23 - page 6, line 3; page 6, lines 8-13; page 7, lines 20-29; and page 8, lines 1-3 and lines 21-28 as originally filed. Further, the subject matter of Claim 2 is now found in amended Claim 1; thus Claim 2 is now cancelled in favor of Claim 1. Likewise, the terms of Claim 47 are now recited in Claim 43; thus the above cancellation of Claim 47. No new matter is introduced. Acceptance is respectfully requested.

Claims 1-56 have been rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. As now amended, the claims are believed to recite a machine or process (computer apparatus and method in a computer system) with final results that are useful, tangible and concrete. Specifically the claims as now amended recite the querying and retrieving of a desired object data set from a data store, such query results are useful, concrete and tangible in the art of database management.

Acceptance is respectfully requested such that the rejection of Claims 1-56 under § 101 is believed to be overcome.

Claims 1-15 and 31-41 have been rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5,918,232 to Pouschine et al.

By way of overview in the database arts, a "relation" is a table in a data store. A "dimension" is a column in a table, and a "tuple" is a row in a table. The intersections of the rows and columns of a table form cells which hold data values. The present invention provides a method and apparatus for retrieving subsets of such data values, i.e., "desired sets of object data" as recited in the claims. In particular, the invention method and apparatus are directed to defining queries on virtual relations which define the desired sets of object data to be retrieved from the data store. This is accomplished by a written representation which implies constraints

on relations or dimensions using a record operator to indicate which constraints apply to which tuples. This is recited in base Claims 1 and 31 as "...providing a written representation of a desired object data set in terms of dimensions...from relations storing object data in the data store...implying constraints on relation instances or dimensions including specifying sets of objects using constraints on dimensions and using a record operator to indicate which constraints apply to a same tuple in a relation..." or

"wherein the written representation...employs a record operator notation to indicate which predicates apply to a same tuple...using the written representation to query the data store and retrieve the desired object data set by implying constraints on relations and determining number of dimensions and tuples in a relation to apply predicates..."

In contrast, Pouschine discloses a system and method for computer modeling. The Pouschine system obtains measurements of physical objects and activities which are related to the entity to be modeled. The measurements are transformed into computer data. A plurality of independent dimensions are created where each dimension includes at least one element. A plurality of cells are created each of which is associated with the intersection of two or more elements, and each cell is for storing at least one value. A rule domain is associated with a respective cell and includes at least one rule for assigning values to the respective cells (Abstract). Nowhere in Pouschine is there a written representation of a desired data set from a given data store where the written representation uses a record indicator to indicate constraints on tuples (rows) in a table of the data store. As such Pouschine does not imply, suggest or anticipate the present invention as now claimed in base Claims 1 and 31. Claims 3, 4, 6, 8, 11-12, 17-18 and 28 depend from base Claim 1 and thus inherit the foregoing patentable distinctions. Claims 33, 35, 39-40, 43, 48-49 and 54-55 depend from base Claim 31 and similarly inherit the foregoing patentable distinctions as recited in that base claim. As such the § 102 rejection based on Pouschine cannot stand and withdrawal of this rejection in favor of Claims 1, 3-4, 6, 8, 11-13, 17-18, 28, 31, 33, 35, 39-40, 43, 48-49 and 54-55 is respectfully requested.

With regard to the double patenting rejection, it is acknowledged that Claims 1-56 have been provisionally rejected based on Claims 1-25 of co-pending Application No. 10/356,365. Prosecution of that application will defer to the present application. Upon allowance of claims in

either application, Applicants will timely file a terminal disclaimer in compliance with 37 C.F.R. § 1.321(b) and (c).

CONCLUSION

In view of the above amendments and remarks, it is believed that all now pending claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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